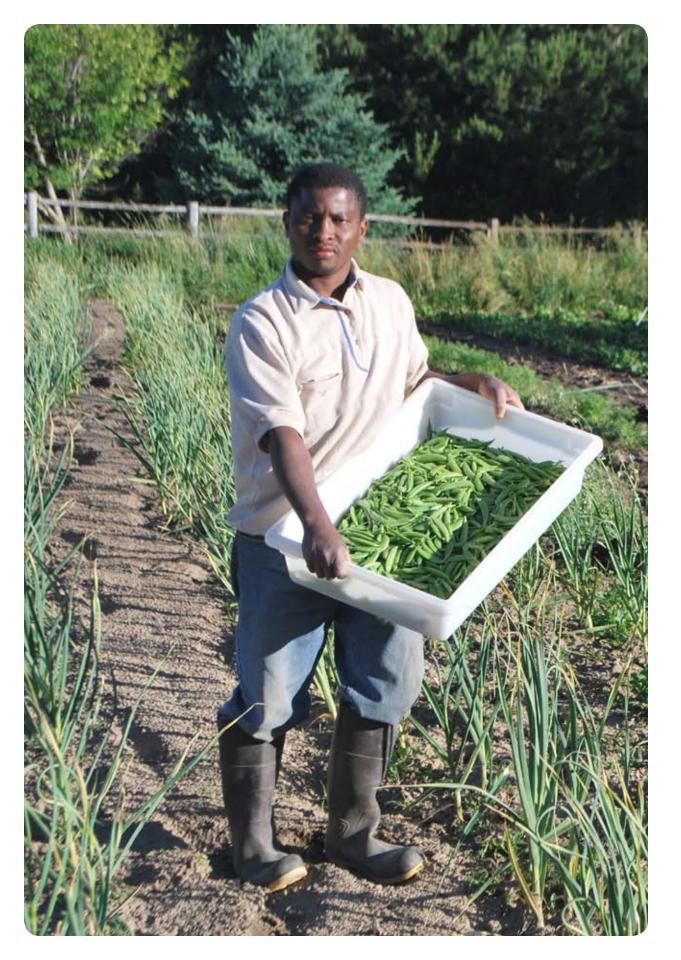




United States Department of Agriculture National Institute of Food and Agriculture



BEGINNING FARMER AND RANCHER DEVELOPMENT PROGRAM





and Agriculture

FY2011 OUTCOMES REPORT

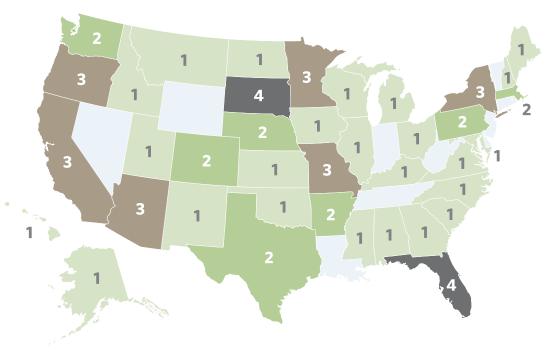
Beginning Farmer and Rancher Development Program

PROGRAM OVERVIEW

N FISCAL YEARS (FY) 2009 AND FY2010, the Beginning Farmer and Rancher Development Program (BFRDP) funded 69 projects to train, educate, and provide outreach and technical assistance to beginning farmers and ranchers. While projects are currently located in 45 states, the program serves beginning farmers and ranchers nationwide, as shown in the map below (see Figure 1). Thirty-six more projects were funded and initiated in September 2011. The outcomes of projects funded in FY 2011 are not included in this report.

Of the FY2009 and FY2010 projects, 65—25 from FY09 and 40 from FY10—are standard projects that address the needs of beginning farmers and ranchers through local and regional training, education, outreach, and technical assistance initiatives that enhance self-employment in farming, ranching, and forestry. >>

FIGURE 1: DISTRIBUTION OF FY 2009 & 2010 PROJECTS IN THE UNITED STATES



Three development grants are helping build the capacity of organizations that have not previously been successful in obtaining competitive standard grants from the National Institute of Food and Agriculture (NIFA). Three educational enhancement projects help beginning farmers and ranchers by conducting evaluation, coordination, and enhancement activities for standard projects and other non-funded beginning farmer programs.

Additionally, the U.S. Department of Agriculture's (USDA) National Agricultural Library (NAL) was funded as a clearinghouse to establish an electronic collection of the nation's beginning farmer and rancher education programs and opportunities.

This report explores the short-term outputs as well as proxies that indicate longer-term outcomes for FY2009 and FY2010 BFRDP projects. It also includes a detailed discussion and explanation of the processes used to evaluate project impacts.

OUTCOMES

RANTEES COLLECTED AND REPORTED on several output and outcome measures through their annual Current Research Information System (CRIS) reports. Because of significant differences in project goals and activities, grantees chose to report on different outputs and outcomes; therefore, the reporting pool of participants varies in each category.

EDUCATION AND OUTREACH MATERIALS

Standard grants produced newsletters, websites, peer-reviewed journal articles, audio/video productions, and other materials to support training and outreach efforts for beginning farmers and ranchers. Of the 1,739 materials produced, those classified as "Other" were the most reported and accounted for 34 percent. This category includes new curricula, training manuals and handouts, software tools, translations and visual tools of existing training materials for pre-literate trainees, and model land leases. This diversity of materials reflects the completion of FY2009 project work and the range of creative approaches taken by BFRDP grantees.

Promotional flyers/brochures were the second-most popular materials created since they help to continue interest in and awareness of project activities (see Figure 2).

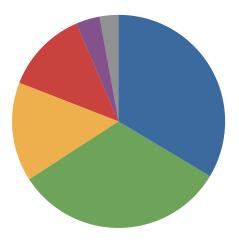


FIGURE 2: EDUCATION AND **OUTREACH MATERIALS** PRODUCED PER CATEGORY

- other (584/34%)
- workshop & event flyers/brochures (561/32%)
- media exposure (262/15%)
- newsletters (219/13%)
- websites (63/4%)
- audio/videotapes or cds (50/3%)

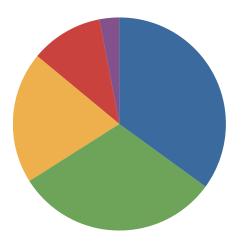


FIGURE 3: PERCENTAGE AND NUMBER OF EVENTS PER CATEGORY

- face-to-face other* (1,799/35%)
- face-to-face classroom (1,564/31%)
- face-to-face incubators (1,045/20%)
- workshops & training other (548/11%)
- other (166/3%)

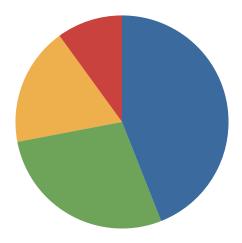


FIGURE 4: PERCENTAGE AND NUMBER OF PARTICIPANTS PER EVENT CATEGORY

- face-to-face classroom (16,655/44%)
- internet-based (10,545/28%)
- face-to-face other* (6,904/18%)
- other (3,944/10%)

TYPES OF WORKSHOPS AND TRAINING

Training activities are the cornerstone of nearly all the BFRDP projects and include traditional classroom-based workshops, mentorships, internships, incubators, Internet courses, and other informal events such as networking activities or field days. Of the 5,122 events, classroom-based training events—at 31 percent—were the most common. These activities included non-credit courses and workshop sessions. The next-most-popular category was other face-to-face events that did not fit into a category. This illustrates that many types of training paradigms are being explored across the BFRDP projects (see Figure 3).

NUMBER OF PARTICIPANTS TRAINED

More than 38,000 new and potential farmers participated in BFRDP project training events. Although incubators are increasing in popularity (Figure 3), fewer beginning farmers and ranchers are trained at incubators as this method of training is land intensive. This metric shows that BFRDP has greatly exceeded its goal of training more than 25,000 beginning farmers and ranchers. However, longer-term analysis is needed to determine if training leads to changed behavior, especially start-up of new farm businesses.

Other BFRDP assistance included coordinating farmer or stakeholder/partner networks; providing technical assistance to on-farm policy; providing funding assistance for training, creating and aiding in marketing opportunities; hosting community/local food events; and offering legal expertise (see Figure 4).

^{*} Face-to face other includes apprenticeships, internships, and mentorships.

DEMOGRAPHICS OF PARTICIPANTS

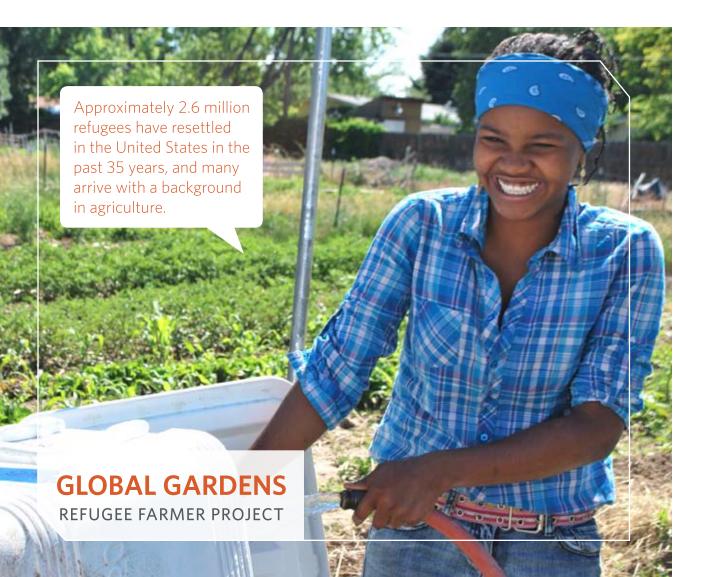
The 2008 Farm Bill stipulates that at least 25 percent of BFRDP funds be allocated to train socially disadvantaged or limited resource farmers and farm workers, women, current farmers and ranchers, and those farming or ranching less than one year or planning to farm or ranch. Many participants do not provide their demographic information.

Approximately 30 percent of the 38,048 participants had very little or no experience in farming. About 44-50 percent are farm workers, females, limited resource, or socially disadvantaged. This number remains at 30-40 percent if women are excluded from the calculations. These numbers show that the target audience is being served above the mandated level (see Figure 5).

FIGURE 5: NUMBER OF PARTICIPANTS IN EACH DEMOGRAPHIC CATEGORY

DEMOGRAPHIC*	NUMBER OF PARTICIPANTS
Female	6,393
Socially Disadvantaged	5,911
Limited Resource	5,203
Currently Farming	4,068
Planning to Farm or Ranch	1,714
Farm Worker	247

^{*} Note that participants can belong to more than one demographic category, e.g., female and farm worker



OTHER POST-TRAINING OUTCOMES

- A project in Pennsylvania had 398 people attend field days and workshops; 74 percent of attendees met someone with whom they will stay in contact.
- A Kansas project reported that program staff assisted farmers in selling 65 Community Supported Agriculture (CSA) subscriptions.
- In Missouri, a farm couple is buying a new farm to expand their organic dairy after meeting the Farm Credit Services representative through their training class.

After training, 85% of reporting participants increased their knowledge and skills.

CHANGES IN KNOWLEDGE, ATTITUDES, SKILLS, AND INTENTIONS IMMEDIATELY **AFTER TRAINING EVENTS**

Surveys taken immediately after training events measured how grantees changed their knowledge, attitude, skill, or intention. While each project may only measure and report on some of the criteria, an indication of the overall impact of BFRDP is discernible (see Figure 6).

FIGURE 6: CHANGES IN KNOWLEDGE, ATTITUDES, SKILLS, AND INTENTIONS AFTER TRAINING EVENTS

CHANGE	PARTICIPANTS REPORTING	%
Increased their knowledge	8,388	85%
Changed their attitude	3,609	83%
Acquired a new skill after attending training	987	81%
Planned to change their behavior as a result of the training	8,287	73%
Planned to start a farm after their training	3,104	45%

After one year of training, 62% of reporting participants had developed a farm plan.

CHANGE IN BEHAVIOR

Several projects reported the amount of respondents who changed practices or farming status at the end of the first year as well as at the end of the second year, though not every project was able to survey all participants on each indicator (see Figure 7).

FIGURE 7: CHANGES IN BEHAVIOR AFTER TRAINING EVENTS

	ONE YEAR AFTER TI	RAINING	TWO YEARS AFTER TRAINING	
CHANGE	PARTICIPANTS REPORTING	%	PARTICIPANTS REPORTING	%
Changed farming practices	5,371	63%	3,860	57%
Changed business practices	5,371	26%	3,860	30%
Developed a farm plan	1,879	62%	919	58%
Started a farm	1,884	35%	366	36%
Still involved in training	1,580	62%	668	64%

CASE STUDIES: DIFFERENT EDUCATIONAL TECHNIQUES

FRDP PROJECTS USE SEVERAL TECHNIQUES to educate, train, and support beginning farmers and ranchers as they prepare to become independent. Methodologies include face-to-face classroom coursework or workshops, one-on-one mentoring, hands-on workshops, incubators, and full-time apprenticeships with a seasoned farmer. In this report, we highlight several projects that have had great success with one or more of the particular techniques.

TECHNIQUE: CLASSROOM

NEW YORK CITY SCHOOL OF URBAN AGRICULTURE (FARM SCHOOL NYC): JUST FOODS

About one-third of the residents in South Bronx, East and Central Harlem, and Central Brooklyn live in poverty and are disproportionately affected by diet-related illness such as diabetes, heart disease, and obesity. In fact, adults with the lowest household incomes are twice as likely to have diabetes compared with adults with the highest household incomes. These factors—compounded by current economic conditions—are giving urban agriculture ever-growing momentum as a means to feed, heal, employ, and empower communities.

Farm School NYC uses face-to-face classes and workshops to increase the skills and knowledge of new and beginning farmers who want to grow food for personal consumption or as an entrepreneurial activity. The broad goal of Farm School NYC is to reach all New York City

gardeners, but its particular focus is to ensure access for the low-income population. The school offers multiple-session classes or workshops and, ultimately, a 2-year certificate program in Urban Agriculture.

In its first year, Farm School NYC had 1,466 students take 96 classes and workshops—all face-to-face events often taking place in community gardens around the city. Of the certificate students, 90 percent have begun using at least one new, improved practice.

Of students who submitted a course evaluation, 59 percent reported increased ability to safely and effectively grow, harvest, and store crops; 67 percent reported an improved ability to assess a site for potential to grow crops; and 86 percent reported that the course will make them better farmers.

TECHNIQUE: APPRENTICESHIP

LOCAL MARKETS FOR BEGINNING FARMERS: BRANDING, BUSINESS PLANNING, AND MENTORING FOR APPALACHIAN FARMS

From 2006 to 2010, roughly one in six Appalachian residents lived below the poverty level (below \$22,113 for a family of two adults). The mountainous region of Western North Carolina and bordering counties of South Carolina, Georgia, Tennessee, and Virginia has over 42,000 farms; however, 90 percent of those have yearly sales of less than \$50,000. Further, sprawl and development, tobacco buyouts, crop disasters, and an aging farmer population in the region led to a 70 percent

"This program has reinforced how much farmers can and will help each other out. It is inspiring to me and very encouraging to my interns, who are serious about farming in the future."

—farmer testimony from CRIS report

decline in farmland between 1949 and 2007.

North Carolina Cooperative Extension agents identified specific training needs, including crop diversification, sustainable farming, and food safety regulation compliance. Extension agents provided workshops and short courses, while Appalachian Sustainable Agricultural Project (ASAP) partner Organic Growers School developed an apprenticeship program to give beginning farmers a full-time, hands-on opportunity to build skills and to learn farm management practices from seasoned farmers. The Apprentice Link program, which matches farmers with prospective apprentices, connected 113 farmers and apprentices in the first year.

To date, ASAP has directly assisted 865 farmers across 20 rural counties. Evaluation reports show that 97 percent of the farmers had a change in knowledge and 77 percent plan to use that new information to change or improve their farming or business practices. Of the total participants, 46 percent were women.

"I plan to use the cash flow worksheets on a daily basis and time wheel management to manage my time on producing my products for sale. I will also keep records of my units, variable, and overhead costs. These forms and the class instructor were so helpful."

—farmer testimony from CRIS report





TECHNIQUE: INCUBATOR

NEW ROOTS FOR REFUGEES

Many refugees from countries such as Burma, Burundi, Bhutan, Somalia, Iraq, and Sudan have been settling in Northeast Kansas since 1975. Today, refugees are some of the poorest individuals in Kansas City; 80 percent of resettled refugees still qualify for foods stamps 1 year after arriving in the United States. While about 70 percent of refugees come from some type of agricultural background in their home country, individuals aspiring to farm in the United States lack knowledge of U.S. markets, climates, crops, business planning, and financial management and have limited English skills.

The New Roots for Refugees project, run by Catholic Charities of Northeast Kansas, structures its program around an incubator farm. Aspiring farmers who meet the program requirements are provided a one-quarter acre parcel of the training farm where they can experiment with a variety of crops and receive advice from an experienced horticulturist on weekly field

walks. In addition, participants attend workshops on financial literacy, business planning, and other agricultural topics, as well as English classes.

In the summer of 2011, all 17 of the incubator farmers were selling produce at 8 weekly farmer's markets as well as selling weekly CSA shares; all farmers met or exceeded weekly sales goals of \$150. At the end of the 2011 season, 16 farmers had sold a combined total of \$103,321. Several new farmers have made significant steps towards self-sufficiency—eight have secured their own transportation to market, two are selling at markets independently of New Roots for Refugees, four have established Individual Development Accounts, and four have purchased their own farmland.

TECHNIQUE: MENTORING

INTEGRATED POULTRY, LIVESTOCK, AND AGROFORESTRY PRODUCTION AND TRAINING FOR NEW AND BEGINNING FARMERS AND RANCHERS: UNIVERSITY OF ARKANSAS

Agriculture is one of the most important economic sectors in the South. Unfortunately, the migration of rural youth to urban areas is on the rise, which makes it difficult to replace the number of retiring farmers with new farmers. In addition, the number of young people enrolling in traditional agricultural schools is simultaneously declining. Fortunately, some segments of the rural population—African-Americans, Latinos, veterans, and women—are showing a particular interest in beginning or returning to agricultural enterprise in the rural communities of Arkansas and Oklahoma.

A group of seven organizations (two universities, two Extension and research services, and three non-governmental organizations), led by poultry scientist Dr. Daniel Donohue, are working to educate, train, and foster mentorships in ways that address the needs of specific target groups.

For example, the region has a disproportionately high share of military veterans, many of whom would like to pursue a career in farming yet face unique challenges as they transition to civilian life. This project gives them the education, hands-on-training, and mentor relationships they need to create a successful farm business.

The project organizations create custom networking and mentorship systems for all of their target populations. In the first year, project events created 32 mentorship opportunities and project staff worked with 12 individual farmers on network development.

Other achievements in the first year include the development of 28 educational modules in both English and Spanish, workshop and seminar attendance of 490, and the completion of 12 internships with experienced farmers.

TECHNIQUE: LAND LINKING

NEBRASKA NETWORK FOR BEGINNING FARMERS AND RANCHERS

Like many states across the Midwest, Nebraska has experienced a dramatic shift in agricultural age demographics over the last half century—the number of farmers ages 50 and over is steadily rising while that of younger farmers is declining. While there is significant interest in starting new farm businesses, beginning farmers require training in technical subjects, business planning, and financial management, as well as the land on which to use those skills. The Land Link program brings together beginning farmers and ranchers with landowners who are looking for a successor.

The Center for Rural Affairs, in partnership with the University of Nebraska-Lincoln, Legal-Aid of Nebraska, and the Nebraska Sustainable Agriculture Society, provides workshops to train beginning farmers on topics of technical agricultural relevance as well as financial and business planning. The heart of the project is matching retiring farmland owners with aspiring farmers. In addition to creating a bridge between the

two groups, the project provides strategies and advice to address the legal and financial concerns that surround such a business transfer.

In the project's first year, the online materials had nearly 7,000 visits monthly, while workshops and courses had 893 participants— 25 percent of whom were women. Land Link experienced a 25 percent growth in farmers seeking land and an 80 percent growth in landowners looking for a successor. At least two successful matches were made between beginning and retiring farmers and land successfully transferred. Forty-five farm or ranch transfer plans have been completed and await matches.

In speaking of a newly added resource on the project website, one beginning farmer thanked the project partners "for providing such a great piece of information to assist individuals such as myself with dreams of building a business in animal husbandry."

DIVERSITY & REFUGEES

HE 2008 FARM BILL STIPULATES that at least 25 percent of BFRDP funds reach socially disadvantaged or limited resource farmers. Refugees are considered among the socially disadvantaged. • Approximately 2.6 million refugees have resettled in the United States in the past 35 years, ranging from a high of 207,116 in 1980 to a low of 27,100 in 2002. Many arrive with a background in agriculture and most arrive with little or no possessions or accumulated wealth. Today, over two dozen programs work to support refugees as they learn the best practices of agriculture in the United States environmentally sound techniques, marketing skills, and business management chief among the skills they learn. • BFRDP awarded five projects that specifically reach out to refugee populations, and another four projects that reach refugees but do not specifically target them. In a 1-year period, the BFRDP five refugee-specific projects reached over 1,000 refugees. After 1 year, 55 percent of participants started farming—of the remaining, many had already been farming before beginning project activities. After 2 years, 50 percent of participants had changes their technical, marketing, or business practices to incorporate new knowledge and skills.

DIVERSITY & REFUGEES

GLOBAL GARDENS IDAHO NEW REFUGEE FARMER PROJECT

Thousands of refugees live in and around Boise, ID, after fleeing religious, ethnic, or other persecution in their home country. Typically arriving with no accumulated assets, they often live in poverty and face numerous barriers—linguistic, educational, and financial to creating viable farm businesses.



The Global Gardens New Refugee Farmer Project teaches refugees entrepreneurship and business management, basic crop farming practices, and specific agricultural practices such as integrated pest management, weed management, organic agriculture, and soil stewardship. The project uses a variety of techniques, including incubator farm mentorships, full-time apprentice placements, youth internships, and face-to-face workshops and courses. The participants sell the produce they've grown at farmer's markets, through a weekly CSA program, and to local restaurants and ethnic grocery stores.

In the project's first year, Global Gardens staff conducted 10 classroom training sessions and workshops as well as 15 home visits for one-on-one training on greenhouse production, farm planning, and record keeping. All 24 farmers who completed a workshop or class plan to change their behavior or approach in the next season based upon their new knowledge. Average sales per farmer nearly tripled in one year, up from \$1,563 in 2010 to \$4,429 in 2011.



EDUCATIONAL ENHANCEMENT PROJECTS

DUCATIONAL ENHANCEMENT PROJECTS (EEPS) are funded with the express purpose of assembling a team of experts who review beginning farmer and rancher curriculums and programs, identify gaps, and develop and disseminate recommendations and materials to address these gaps. The educational enhancement teams will enhance funded and non-funded beginning farmer and rancher education programs by training and supporting those who themselves train beginning farmers and ranchers. The EEPs funded in 2009 have made significant progress, and we offer some of their key achievements below.

EDUCATIONAL ENHANCEMENT PROJECT

COLLABORATIVE ALLIANCE OF FARM BEGINNINGS PROGRAMS: PLANNING AND SUPPORTING FARMER-TO-FARMER EDUCATION IN SUSTAINABLE AGRICULTURE

The Farm Beginnings (FB) Collaborative represents 11 organizations in 6 states and supports organizations that offer the FB curriculum. This project standardizes evaluation components, shares program materials, and strengthens training areas. The project also focuses on sustainability of FB graduates within 2 to 5 years of farm start-up.

Upon completion of the second year of the project, the Farm Beginnings Collaborative organizations report strengthened farmer networks by increasing their web presence, hosting in-depth workshops, publishing farmerto-farmer handbooks, and continuing field days. Notably, the Collaborative expanded from 9 organizations to 11. One of the new members—Food Works—has already completed its first Farm Beginnings program.

Also accomplished in the second year was the collection of data from 201 graduates coming out of 7 Farm Beginnings programs, enabling the Collaborative team to improve farmer training as well as to address support needs. Using newly acquired information, 12 Farm Beginning program trainers, representing 7 organizations, were educated on beginning farmer training best practices at a 2-day meeting.

EDUCATIONAL ENHANCEMENT PROJECT

ENHANCING ENVIRONMENTAL PLANNING AND LEADERSHIP OF BEGINNING FARMERS AND RANCHERS

The Livestock and Poultry Environmental Learning Center (LPELC) at the University of Nebraska—Lincoln coordinates stakeholder-driven development of user-friendly educational resources on environmental topics for beginning farmers.

In the project's second year, LPELC released the first of several planned curriculum modules as well as two mini-modules. One curriculum module received the highest score for completeness and organization by 80 percent of the high

school agriculture teachers who pilot-tested it.

In addition, LPELC held a number of in-person workshops, including two train-the-trainer sessions offered to BFRDP standard grantees. LPELC also held a workshop entitled "Defining Your Stewardship Ethic in an Environmental Policy Statement" at the 2010 National Young Farmer Educational Association conference. Forty-five young or future farmers and agricultural professionals participated.

EDUCATIONAL ENHANCEMENT PROJECT

ENHANCING BEGINNING FARMER SUCCESS THROUGH VIBRANT SUPPORT NETWORKS IN THE NORTHEAST

The educational team at Cornell University initiated a nationwide survey to learn more about needs and preferences in teaching environmental management topics. They have also developed 8 new online courses; 13 are currently available. This year, 120 students completed online courses.

Further progress includes the launch of the Northeast Beginning Farmer Project website (www.nebeginningfarmers.org), which has over 2,200 registered users, and the completion of curriculum support materials for K-12 education. The goal of this material is to "engage K-12 teachers and young farmer activists to shift youth cultural norms about farming as a desirable career option." The team also hosted a teacher workshop on the Northeast Beginning Farmer Project materials and techniques.

"As far as I am concerned, your beginning farmer program is not only justified, it is an indispensable resource for new farmers without an agriculture degree."

Northeast Beginning Farmer Project participar

"Setting and monitoring standards has been huge by providing both a philosophical and practical foundation to our Farm Beginnings program."

—Farm Beginnings Collaborative member

START2FARM

HE START2FARM.GOV CLEARINGHOUSE serves as a one-stop reference for programs and resources to successfully start and stay farming. The National Agricultural Library (NAL) launched Start2Farm.gov in August 2011 and it was formally announced by Secretary of Agriculture Tom Vilsack in February 2012. It features information for those who are thinking about farming and new farmers with 10 years or less experience.

Visitors to Start2Farm.gov can find training, financing, technical assistance, and networking programs that are geared specifically for beginning farmers and ranchers and available throughout the United States. Guided searches to find training programs, funding assistance, networking opportunities, and technical assistance by geography and other aspects help users identify materials from a large collection of programs and resources in the Start2Farm database.

There is a special focus on BFRDP programs, including case studies about successful new and beginning farmer and rancher trainees and a searchable listing of projects with related

contacts and resources. Start2farm.gov also compiles the products (documents, manuals, videos, articles, etc.) created by BFRDP projects, especially as FY2009 projects enter the final year of their funded work.

Additionally, an annual Beginning Farmer and Rancher Conference, hosted in partnership with the American Farm Bureau Federation, showcases BFRDP training programs and successes and provides workshops and farm tours for beginning farmer attendees. The second annual Beginning Farmer and Rancher Conference was held February 18-19, 2012, in Grand Rapids, MI.

MEASURING AND COMPILING OUTCOMES

Outcomes are an assessment of the results of a program compared to its intended purpose and are important to the beneficiaries and/or the public. Expected outcomes for BFRDP were defined in 2010, after the FY2009 awards were made. Since then, outcome measures have been refined through increased experience with BFRDP and more clarification regarding expected results. One of the biggest constraints to measuring outcomes from an education program is the time it takes for outcomes to occur. It can also be difficult for extramural grant programs to collect and provide information on long-term impacts. Challenges include a lack of mechanisms to collect outcomes beyond the grant period and the legal prohibition of burdensome information collection activities by government. Because of these challenges, interim outcomes may be the most evidence of success that can be measured through a grant program.

Many challenges in collecting and compiling the outcome measurements have been found—one of the biggest challenges being the wide variation in project activities and goals. This makes it difficult to create common measurements and to estimate aggregate outcome for the program. For example, in the Evaluation Metrics discussed in this report, only a few grantees measured the change in knowledge, attitudes, and skills/intentions immediately after training events. Another challenge in collecting and compiling outcome measurements is caused by the diversity of expertise in evaluation techniques and the types of farmers being trained. As many grantees needed training to use the outcome measurements, training was offered at the project director meetings in 2010 and 2011 and through webinars in 2011 and 2012. The links to the webinars are posted on the BFRDP website for all grantees to use.

NIFA works with land-grant university partners and other stakeholders to advance knowledge for agriculture, the environment, human health and well-being, and communities through national program leadership and federal assistance.

Assistant Director | Institute of Food Production and Sustainability | USDA-NIFA Debby Sheely | 202-401-1924 | dsheely@nifa.usda.gov

National Program Leader | Beginning Farmer and Rancher Development Program | USDA-NIFA Suresh Sureshwaran | 202-720-7536 | ssureshwaran@nifa.usda.gov

COMPILED BY Stephanie Ritchie | USDA-NAL | stephanie.ritchie@ars.usda.gov Alexandra Wilson | USDA-NIFA| afwilson@nifa.usda.gov

EDITED BY Scott Elliott | USDA-NIFA | selliott@nifa.usda.gov

 ${\tt DESIGNED~BY~Stephanie~Engle~|~USDA-NIFA~|~sengle@nifa.usda.gov}$

OUTCOMES \ REPORT